(19) World Intellectual Property Organization International Bureau



. | 1887 | 1887 | 1887 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1888 | 1

WO 2006/093326 A1

(43) International Publication Date 8 September 2006 (08.09.2006)

(10) International Publication Number

(51) International Patent Classification: *G11B 7/135* (2006.01)

(21) International Application Number:

PCT/JP2006/304516

(22) International Filing Date: 2 March 2006 (02.03.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2005-056976 2 March 2005 (02.03.2005) 2005-070366 14 March 2005 (14.03.2005) Л 15 March 2005 (15.03.2005) Љ 2005-074031 31 March 2005 (31.03.2005) 2005-103441 IP 9 May 2005 (09.05.2005) 2005-135509 JP 2005-248548 30 August 2005 (30.08.2005)

(71) Applicant (for all designated States except US): RICOH COMPANY, LTD. [JP/JP]; 3-6, Nakamagome 1-chome, Ohta-ku, Tokyo, 1438555 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): OGATA, Tetsuya [JP/JP]; 1804-D-204, Nippacho, Kouhoku-ku, Yokohama-shi, Kanagawa, 2230057 (JP). (74) Agent: ITOH, Tadahiko; 32nd Floor, Yebisu Garden Place Tower, 20-3, Ebisu 4-chome, Shibuya-ku, Tokyo, 1506032 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

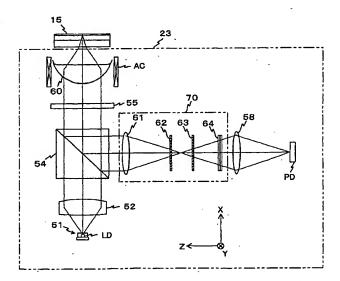
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: OPTICAL SYSTEM, OPTICAL PICKUP APPARATUS, AND OPTICAL DISK APPARATUS



(57) Abstract: The present invention discloses an optical system for extracting signal light components from a beam including the signal light components and stray light components. The optical system includes a condensing optical element situated on an optical path of the beam for condensing the beam, a polarization changing unit for changing the state of polarization of at least one of the signal light components and the stray light components included in the incident beam transmitted through the polarization changing unit.



A 705790/2007